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IDEA-0146-69

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10 February 1969

MEMORANDUM FOR THE RECORD

SUBJECT: Trip Report to ITEK, 4-5 February 1969

1. The undersigned visited Itek facilities at Lexington and Burlington, Massachusetts, on 4-5 February 1969.

25X1A [REDACTED] D/R&D/OSA, participated in orientation and discussions on 5 February 1969. Itek personnel contacted were [REDACTED]

25X1A [REDACTED] among others. Items discussed, all relating to IRIS II, are listed below.

2. Delivery of IRIS II configurations - Deliveries are back on schedule. IRIS II SN-002 was picked up at Hanscom AFB, Massachusetts, the morning of 4 February 1969 and is slated to be delivered to Edwards AFB on 6 Feb 1969. SN-003 will be ready for pick up around 24 February 1969. At this time, a March delivery for SN-004 still looks good. All supporting gear, i.e., test site, consoles, doghouses, carts, are on schedule. Three (3) sets (1 set/hatch) of windows have been shipped to LAC and the fourth set is due to be shipped LAC on 17 February 1969.

3. Test Program - The major problem is still one of getting imagery so a determination can be made if cameras can produce resolution per specification. What is needed is Category II or better weather over urban areas and resolution targets with a minimum of turbulence and the aircraft performing to specification when operating under optimum conditions (i.e., speed, altitude, etc.). These requirements have been stipulated many times. A total of eleven (11) successful test missions will be required to declare IRIS II SN-001, SN-002 and SN-003 operationally ready; and to get data which will be utilized by our operational personnel (i.e., photography in 30° banks, at low sun angles, earliest stabilization time, etc.). The latter data collection can be collected during course of required O.R. tests. A minimum of two flights will be required to determine IRIS II capability to use SO-230 and SO-121.

4. Operation and Flight Manuals - The undersigned brought five (5) preliminary copies of the IRIS II Operation and Flight Manuals back. Material in this manual is essential

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for imagery analysis personnel (NPIC) and our Operational personnel for mission planning, etc. On 7 February, two copies of the manual were forwarded to NPIC and two (2) copies were sent to IDEA/O/OSA and D/O/OSA for their study, comments and questions. SSD/R&D requested the manuals, along with their respective inputs, be returned to his office NLT 28 February 1969.

25X1A 5. Air Compressor - The air compressor and cooling coil brought to Itek by [REDACTED] LAC, on 20 January 1969 to test along with the IRIS II in Itek's environmental chamber, was still at Itek. Both [REDACTED] and the undersigned observed its operation. It is noisy and does produce vibrations. This type air compressor (piston) will be flown in a U-2R along with the IRIS II and instrumentation package to determine if the vibrations have a degrading effect on the photography. These flights are planned during week of 10 February 1969. SSD/R&D recommends Project Headquarters request LAC to give us a time and cost study to produce centrifugal pumps to furnish air to the air bars of the IRIS II.

6. Q-Bay Environmental Control - This problem is one of thermal stability, temperature and degree of temperature control. For best performance, IRIS II prefers to start out at approximately 40°F and have its heater bring Q-Bay temperature to 70°. The "H", B and Delta III, on the other hand, prefer to start out at higher temperatures. With the IRIS II, if temperatures exceed 70°F, it is necessary for the temperature to be reduced below 70° before the heater can be cut in. Essentially, our problem will be to assure the mods made (i.e., Q-bay insulation, ground conditioning, etc.) while beneficial to one config, is not detrimental to the performance of another. Our objective should be:

- A. As compatible as possible to all configs.
- B. Total year around ideal bay environment.
- C. Reduce configuration stabilization time.
- D. Improve imagery and reliability.

25X1A The first meeting to firm up configuration thermal stabilization requirements will be held week of 10 February 1969. Messrs. 25X1A  
25X1A [REDACTED] ("B" and "H" config), [REDACTED] (Delta III), and [REDACTED] 25X1A  
[REDACTED] (IRIS II) will meet on West Coast. [REDACTED]  
LAC, in the absence of [REDACTED] is being invited to attend.

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25X1A 7. The undersigned discussed some advanced technologies being undertaken by Itek with [REDACTED] Manager, Plans and Programs; and, in light of these discussions, [REDACTED] has indicated a desire to brief the appropriate personnel of OSA on some of Itek capabilities and research. Tentative time for the Itek briefing will be within the next two weeks.

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SSD/R&D/OSA

25X1A SSD/R&D/OSA [REDACTED]

Distribution:

- Cy 1 - D/SA (thru TB/OSA)
- 2 - D/O/OSA
- 3 - D/M/OSA
- 4 - IDEA/O/OSA
- 5 - CMD/OSA
- 6 - D/R&D/OSA
- 7 - SSD/R&D/OSA
- 8 - SSD/R&D Chrono
- 9 - RB/OSA

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